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ABSTRACT

Performance Evaluation in Foreign Language (PEFL) is a Title IV-C project based on Krashen's Monitor Model for second language acquisition. As such, it recognizes both natural learning (situations requiring spontaneous oral communication) and formal, traditional learning (reading, writing, translation, grammar, syntax). The PEFL Student Achievement Test, containing written, oral and conversation scales was developed by PEFL teachers to replace grades as an undergraduate admissions criterion. The test was developed for students in their second year of high school French, German, or Spanish. This test and student and teacher attitude measures were administered at the beginning and end of the school year. Achievement differences between PEFL students and a comparison group were not statistically significant. Students' interest in foreign language learning waned during the year. Teachers attitudes toward traditional, audiolingual, and oral language instructional methods, did not change. However, non-PEFL teachers became more receptive to oral language instruction. During the staff development seminars, teachers had difficulty in administering the achievement test. All 20 PEFL teachers were willing to use this method the next year: most felt that their students' attitudes and their own teaching methods had improved. (CP)

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PEFL Evaluation Report

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INTRODUCTION

Prior to World War II, the method of teaching foreign languages in schools and college emphasized grammar, reading, and translation. In the early sixties, a new methodology made its debut. Called the Audio-Lingual Method, it promised a new day in foreign language learning, destined to replace the traditional reading/writing emphasis. Debates on its merits swept across the land and a great deal was made of its purported superiority over the grammar-translation method. Congress passed the National Defense Education Act and NDEA institutes propagated to train teachers in the new technique, companies published new textbooks, and language laboratories sprouted in high schools and universities. The ensuing years did not, however, bring the harvest of fluent, enthusiastic speakers of tongues that were awaited. Many factors contributed to a decline in foreign language enrollments and a widespread neglect, if not actual rejection, of foreign language study from elementary schools through Ph.D. requirements at the university.

Without attempting to analyze the origins of this language malaise, the result was that many foreign language teachers, especially those entering the profession in the last dozen years, have been adrift so far as methodology is concerned. Many approaches to foreign language teaching have been developed and new editions of textbooks reflect the diversity. While there is an undeniable vitality in this mutiplicity of approaches, the lack of focus makes it difficult, if not impossible, for foreign language teachers to find reliable and consistent support for professional development and rewarding student achievement. The

PEFL Project[1] hopes to provide the missing focus by supplying a theoretical foundation, specific objectives, related activities, and a test of student performance. Thus, it will provide teachers with a coherent directional indicator without imposing rigid prescriptions regarding methodology, and it gives them the means to create greater enthusiasm among their students with consequent increased satisfaction with foreign language instruction in general.

Purpose

The specific purposes of PEFL are to:

1. Improve high school students' ability to use the target language orally in practical situations and in original self-expression,
2. Establish a minimum performance standard in foreign language for Level II students as provided in the University of California admissions guidelines, and
3. Create a new evaluation system to measure foreign language performance as developed by public and non-public school teachers in an ongoing program of in-service seminars.

Questions

The major questions the Project seeks to answer are:

1. Can a test by devised to measure high school Level II students' oral performance in a foreign language and how do students perform on it?
2. Does study of a foreign language change a student's attitude toward and interest in that language?

[1]ESEA Title IV-C Developmental Innovative Grant, 1978-1980.

3. Does participation in the PEFL Project change teachers' attitude toward and interest in teaching a foreign language and their consequent classroom behavior?
4. What results have the staff development seminars had on participating teachers?
5. What unintended consequences have resulted from the PEFL Project?

Limitations

PEFL is limited to Level II (second year) high school students studying French, German, and Spanish in five Bay Area school districts, plus Level II students in two non-public secondary schools in Oakland and Alameda, California.

Theoretical Foundation

The theory on which PEFL is based supports Krashen's Monitor Model of second language learning.(2) Krashen posits that language is acquired naturally, (meaning spontaneously, informally, intuitively) as well as learned formally (meaning deliberately, consciously, structurally), and that those two kinds of learning should be dealt with independently. In secondary schools, teachers traditionally have emphasized formal learning--reading, writing, translations, grammar, syntax. PEFL emphasizes natural learning--situations, problems, and simulations that require students to communicate spontaneously in the target language. The PEFL Test evaluates students' communicative competence. The PEFL Booklet of Classroom Activities, the result of

(2)Stephen Krashen. "The Monitor Model for Second-Language Acquisition", in R. C. Gingras (editor) Second Language Acquisition and Foreign Language Teaching, Arlington, Virginia: Center for Applied Linguistics, 1978.

two years of trying-out and refining classroom strategies, was devised and created by PEFL teachers to enhance students' oral performance. Krashen's theory serves well both of these major activities and provides a basis for many of the policy decisions regarding the nature and direction of the Project.

"The Treatment"

Discovering, discussing, reviewing the implications of, and applying the Krashen theory, were an aspect of the "Treatment" offered PEFL teachers in their year-long semi-monthly seminars. While the primary purpose of these seminars was the development of a test of oral competency for Level II (second year) high school students of French, German, or Spanish, other researches on language acquisition in addition to Krashen were reviewed, particularly the work of Gingras, Sajavaara, and Kayfetz. Janet Kayfetz met with the seminar on a number of occasions and prepared a position paper, "Theory in Second Language Acquisition and PEFL", which demonstrated for PEFLers the direct tie-in of Krashen and her research with the field-generated activities of the PEFL Project. The major part of the seminar content, however, was the PEFL Test itself--its initial development, administration, analysis, refinement, and revision. Also important was creating, developing, trying-out, critiquing and redesigning classroom activities most appropriate for teachers interested in PEFLing. Finally, the seminars provided an opportunity to exchange information and ideas on how PEFLers' classroom experiences and changing attitudes toward language instruction might be disseminated to an ever-widening number of teachers.

PEFL's Uniqueness

In order to appreciate the uniqueness of the PEFL Project, the difference between conventional language instruction and PEFLing needs to be understood. This difference, as herein described, recognizes that there is some overlap between the two teaching styles, especially at the second level.

Conventional language learning aims to have students obtain proficiency primarily in two areas--reading and writing. When oral work is done in class, correctness of form (syntax) and pronunciation are emphasized rather than fluency and ease of communication. Lesson plans include rote memorization, reading and translating fairly lengthy passages, spelling and vocabulary exercises. Grammar rules are memorized and reinforced with written exercises and structured oral drills. Little time is devoted to "free" oral expression. Evaluation is based primarily on testing reading comprehension and translation skills. In both, grammatical accuracy is paramount. The conventional approach was put in capsule form by one who adheres to this method when she said:

> "It doesn't matter if you can't pronounce the language as long as you carry a pencil and notebook with you whenever you travel."

PEFLing aims to have students obtain proficiency in their ability to communicate spontaneously in the target language. Fluency, ease of response, and informality are emphasized, non-rote oral exercises are used extensively, without, however, losing sight of grammatical structure. Stress is placed on opportunities for students to "live" the language in a modified immersion setting. Approximately half the time

is given over to such activities; the other half of the time is spent developing reading and writing skills. Evaluation reflects this balance between PEFLing and conventional activities.

In oral testing, when students understand what is being said, although they may not be able to reply correctly syntactically, they are communicating in the target language and this is reflected in their grades. In the Project, the classes taught by PEFL teachers were compared with those of a comparison group, using the PEFL-developed test. The test results were reflected in PEFL students' letter grades.

THE EVALUATION DESIGN

The evaluation design of the PEFL Project provided both product (summative) and process (formative) appraisals, as shown in Figure A. The evaluation was concerned with achievement and attitude of comparison groups of students, changes in teacher attitude and behavior, and unintended consequences.

Product measures included:

(1) Language achievement of Level II PEFL and non-PEFL students, as assessed by the PEFL Test that was given on a pre-post basis to PEFL classes and a comparable group of non-PEFL classes.

(2) Interest change of Level II PEFL and non-PEFL students, as assessed by the PEFL Student Interest Inventory that was given on a pre-post test basis, and the attitude of high school students toward the PEFL Test as assessed by the High School Student Attitute Questionnaire that was given

as a post-test to the PEFL group only.

(3) Interest change of PEFL and non-PEFL teachers, as assessed by the PEFL Teacher Interest Inventory that was given on a pre-post test basis to PEFLers and a comparable group of non-PEFL teachers.

(4) Attitude of PEFL teachers toward the testing system, as assessed by the Teacher Attitude Questionnaire that was administered to PEFL teachers on a pre-post test basis.

(5) Reaction to the PEFL Project of U.C. Berkeley students and teachers of French, German and Spanish as assessed by the Student Teacher Questionnaire that was given as a post-test.

Process measures included:

(1) Recorded minutes and reactions of Steering Committee meetings,

(2) Documented semi-monthly journals kept by PEFL teachers,

(3) Interviews with three PEFL teachers selected for longitudinal study,

(4) Evaluator's phenomenological response as a participant/observer of PEFL at meetings, seminars, and workshops,

(5) Responses of school site administrators, U.C. Berkeley language department personnel, student teachers, the Project Director, and the Project Evaluator.

In addition, an external evaluator visited the Project quarterly and submitted a report of her findings and recommendations. The results of these evaluations comprise the remainder of this report, followed by a Summary and Conclusions.

Students and their teachers in Level II
Foreign Language Classes in the five school districts

21 PEFL teachers and their classes N = 600	21 Non-PEFL teachers and their classes N = 600 students

PEFL Student Achievement Test Pre-Post

PEFL Student Interest Inventory Pre-Post

PEFL Student Attitude Questionnaire Post Only

PEFL Teacher Interest Inventory Pre-Post

PEFL Teacher Attitude Questionnaire Pre-Post

PEFL Student Teacher Questionnaire Post Only

UCB seminars for PEFL teachers

Project Minutes, Reports, Recorded Reactions

Journals of PEFL Teachers

Longitudinal Case Study of Selected PEFL Teachers

Participant Observations of PEFLing

UCB Language Department Chairmen

Project Consultants/Staff

School Site Administrators

PEFL Reactionnaire Post Only

Evaluation Results

Figure A. Evaluation Design of the PEFL Project

SAMPLE

In the Spring of 1977, shortly after PEFL was conceived, the Director wrote a letter to Bay Area foreign language teachers who had been involved as supervising teachers in the University's Teacher Education program, inviting them to attend a meeting to discuss a possible foreign language project. Twenty-five teachers came to that first meeting and twenty-one agreed to participate. During the Fall of 1979, after PEFL had been funded as a Title IV-C Developmental/Innovative Project, the Director paired each PEFL teacher with another foreign language teacher in the same department. This person became a control teacher. The control teacher selected was one who closely matched the PEFL teacher in age, experience, and teaching competence. The control teacher agreed to allow his Level II students to be given the PEFL test on a pre-post basis.

Students were randomly assigned to PEFL and comparison group teachers' classes. Neither PEFL nor comparison group teachers knew the makeup of their classes until the day school opened. The randomness of the student computerized registration procedure assures comparability of the Level II classes of PEFL and comparison group students. Students and teachers in the sample are compared on the basis of certain demographic variables in the paragraphs that follow.

Students

The demographic variables obtained for each student group were: 1) level of language, 2) year in school, 3) how long the language has been studied, 4) whether another language besides English is spoken at home, and 5) sex. Table 1 presents the comparison of percentages between PEFL and comparison student groups on the five demographic variables. To test the equality of

proportions between the two groups, a chi-square test was performed for each variable. If the chi-square test was significant, then corresponding explained variance of phi-coefficient squared (ϕ^2) was computed.

While two of the chi-square tests were significant (level of language and year in school), their corresponding explained variances were not significant ($\phi^2 < .10$). Therfore, both groups had similar proportions of students on each of the demographic variables.

The size of the sample of PEFL and comparison student groups was approximately 240 and 200, respectively. Sample size varied slightly on each demographic variable because of missing data. As shown in Table 1, the majority of students in the PEFL and comparison student groups (85%-91%) were in their second year of study of a foreign language. Most were sophomores (46% PEFL; 40% comparison). Twenty-two percent were freshmen students in the PEFL group, 38% in the comparison group. Twenty-five percent of the PEFL students were juniors, 13% of the comparison group. Fewer than 10% of the students in both groups were seniors.

In both groups, students generally had been studying the language from 1 to 3 years. Fewer than 5% of both groups had studied a foreign language less than one year. Approximately 15% in both groups had studied the language three or more years. The majority of students in both groups (67%-70%) did not speak any other language besides English at home. About an equal proportion in both groups were male and female (45% male and 55% female in PEFL; 54% male and 46% female in the comparison group). In general, the analysis shows that the two student groups were comparable.

Table 1. Comparison of PEFL and Comparison Student Groups on Demographic Variables.

		PEFL		Comparison		
		N	%	N	%	Total N
Level of Language	1	1	.004	3	.015	4
Chi-square = 14.02* ϕ^2 = .03	2	213	.91	172	.85	385
	3	12	.05	10	.05	22
	4	6	.03	2	.01	8
	5	1	.004	16	.08	17
	Total	233	100	203	100	436
Year in School	Freshman	52	.22	73	.38	125
Chi-square = 16.59* ϕ^2 = .04	Sophomore	107	.46	77	.40	184
	Junior	57	.25	26	.13	83
	Senior	16	.07	17	.09	33
	Total	232	100	193	100	425
How Long Studied Language	0-6 months	2	.01	9	.04	11
Chi-square = 7.43	6 mon-1 yr	8	.03	8	.04	16
	1-2 years	87	.38	78	.39	165
	2-3 years	101	.44	72	.36	173
	3+ years	33	.14	34	.17	67
	Total	231	100	201	100	432
Other than English Spoken at Home	Yes	67	.30	64	.33	131
Chi-square < 1	No	158	.70	130	.67	288
	Total	225	100	194	100	419
Sex	Male	111	.45	118	.54	229
Chi-square = 3.63	Female	133	.55	99	.46	232
	Total	244	100	217	100	461

*Significant at alpha = .05.

Teachers

The demographic variables obtained for each teacher group were: 1) age, 2) sex, 3) ethnic origin, 4) years of teaching experience, and 5) time spent abroad in the country where the language they taught is spoken. As shown in Table 2, the proportion of teachers was similar for both groups on the demographic variables sex, ethnicity, and age. None of the chi-square tests was significant for these three variables.

There were more females than males in both the PEFL and comparison teacher groups (74% and 62% females, respectively). There were more Whites than non-Whites in both groups (74% and 69% Whites, respectively). There were more teachers over the age of 35 in both PEFL and comparison groups (63% and 55%, respectively).

Table 2 also presents the comparison of percentages between PEFL and comparison teacher groups on the latter two demographic variables. Because the frequencies for the comparison group were low (N=5 for comparison, N=13 for PEFL), a chi-square test could not be performed. As can be seen from "eyeballing" the table, the proportions of teachers on these two variables were not similar for the two groups. For the "time abroad" variable, however, about half the teachers in both groups spent more than two years in the country where the language they taught is spoken. The majority of PEFL teachers had more than 10 years teaching experience, whereas the majority of comparison group teachers had fewer than 10 years teaching experience. In summary, except for years of teaching experience, the two groups of teachers were comparable.

Table 2. Comparison of PEFL and Comparison Teachers on Demographic Variables.

		PEFL		Comparison		
		N	%	N	%	Total N
Sex of Respondent	Male	5	.26	6	.38	11
Chi-square < 1	Female	14	.74	10	.62	24
	Total	19	100	16	100	36
Ethnic Background	White	14	.74	11	.69	25
Chi-square < 1	Non-White	5	.26	5	.31	10
	Total	19	100	16	100	35
Age of Respondent	≤ 35	7	.37	7	.44	14
Chi-square < 1	> 35	12	.63	9	.55	21
	Total	19	100	16	100	35
Years Experience	0-3 yrs	1	.08	3	.60	4
	3-10 yrs	2	.15	1	.20	3
	10-20 yrs	5	.38	0	0	5
	Total	13	100	5	100	18
Time Abroad	0-2 months	1	.08	0	0	1
	2-6 months	3	.23	0	0	3
	6 mon-1 year	1	.08	2	.40	3
	1-2 years	2	.15	0	0	2
	2+ years	6	.46	3	.60	9
	Total	13	100	5	100	18

FINDINGS

PEFL STUDENT ACHIEVEMENT TEST

The means and standard deviations of the students' scores on the Written, Oral, and Conversation pre-test, post-test, and difference or gain scores (post minus pre) are presented in Table 3.

Eighteen one-Way Analyses of Variance were performed on the Student Achievement Test: comparison of groups (PEFL vs. comparison), comparison of languages (French, German, and Spanish) on the pre, post, and difference scores on the Written, Oral, and Conversation scales.

Since a conclusion that the results are statistically significant tells nothing about the magnitude of these differences, measures of explained variance were calculated. The reader is reminded that explained variance, eta^2, is a measure of the strength or magnitude of the difference between groups; it determines how much of the variability in the criterion measure can be explained by the PEFL program. If the test statistic is significant, than the eta^2 will be examined. Explained variances at less than 10 percent will not be considered meaningful.

Written Summary (Tables 4-9 appear in the Appendix)

There were no significant differences between groups, nor between languages on the pre, post, and gain score analyses. The F-ratios for the between group analyses were $F(1,459) < 1$ for the pretest scores; $F(1,465) = 23.17$ for the post-test scores; $F(1,456) = 20.42$ for the gain scores. While the latter two F tests were significant at $\alpha \leq .05$, their respective eta^2's were not considered meaningfully high, .05 and .04, respectively.

The F-ratios for the between language analyses were $F(2,458) = 2.81$ for the pre-test scores; $F(2,464) = 2.40$ for the post-test scores; $F(2,455) = 1.81$ for the gain scores. None of the F tests was significant.

Oral Summary (Tables 10 - 15 appear in the Appendix)

There were no significant differences between groups, nor between languages on the pre, post, and gain score analyses. The F-ratios for the between group analyses were $F(1,468) < 1$ for the pre-test scores; $F(1,468) = 10.37$ for the post-test scores; $F(1,468) = 4.20$ for the gain scores. The latter two F tests were significant at $\alpha \leq .05$, but their respective eta^2's were not, .02 and .01, respectively.

The F-ratios for the between language analyses were $F(2,467) = 9.18$ for the pre-test scores; $F(2,467) = 5.72$ for the post-test scores; $F(2,467) = 10.69$ for the gain scores. All three F tests were significant at $\alpha \leq .05$, however, corresponding eta^2's were .04, .02 and .04, respectively.

Conversation Summary (Tables 16-21 appear in the Appendix)

There were no significant differences between groups, nor between languages on the pre, post, and gain score analyses. The F-ratios for the between group analyses were $F(1,468) = 1.83$ for the pre-test scores; $F(1,468) = 10.22$ for the post-test scores; $F(1,468) = 2.61$ for the gain scores. The F test for the post-test was significant at $\alpha \leq .05$, but $eta^2 = .02$.

The F-ratios for the between language analyses were $F(2,467) < 1$ for the pre-test; $F(2,467) = 10.07$ for the post-test; $F(2,467) = 8.29$ for the gain scores. The latter two F tests were significant at $\alpha \leq .05$, but corresponding eta^2's were not, .04 and .03, respectively.

Table 3. Means and Standard Deviations for the PEFL Student Achievement Test.

Written Summary

	PRE			POST			DIFFERENCE		
	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
PEFL	244	1.38	1.01	248	2.71	1.02	244	1.32	1.30
CpGp	217	1.43	1.01	219	2.20	1.25	214	.76	1.35
French	148	1.53	1.01	147	2.61	1.02	147	1.09	1.27
German	114	1.24	.98	114	2.51	1.26	113	1.24	1.41
Spanish	199	1.40	1.02	206	2.34	1.18	198	.94	1.38
TOTAL	461	1.40	1.01	467	2.47	1.13	458	1.06	1.32

Oral Summary

	PRE			POST			DIFFERENCE		
	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
PEFL	248	1.24	1.10	248	2.58	.90	248	1.34	1.21
CpGp	222	1.16	.95	222	2.28	1.15	222	1.12	1.11
French		1.35			2.67			1.32	
German		.85			2.32			1.47	
Spanish		1.29			2.34			1.05	
TOTAL	470	1.20	1.03	470	2.44	1.02	470	1.24	1.16

470

Conversation

	PRE			POST			DIFFERENCE		
	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
PEFL	248	1.84	1.04	248	2.75	.99	248	.91	1.22
CpGp	222	1.72	.92	222	2.45	1.04	222	.73	1.15
French		1.76			2.78			1.02	
German		1.75			2.70			.95	
Spanish		1.82			2.44			.63	
TOTAL	470	1.78	.98	470	2.61	1.01	470	.83	1.19

THE STUDENT INTEREST INVENTORY

The Student Interest Inventory was a modified version of the Lambert-Cavanaugh Personality and Attitude Scales.(4) The inventory measures changes in interest in and enthusiasm for the study of a foreign language. There were 580 students who took the pre-test and 470 who took the post-test. The difference in number reflects student mobility and program changes.

The means and standard deviations for the pre, post, and gain scores on the Student Interest Inventory are presented in Table 22. Six One-Way Analyses of Variance were performed on the Student Interest Inventory: comparison of groups (PEFL vs Comparison), comparison of Languages (French, German, and Spanish) on the pre, post, and difference scores.

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(3) The change in attitude was assessed by subtracting the pre-test item scores from the post-test item scores and summing these difference scores to obtain a single measure for each student. In order for this total score to be meaningful, it was necessary to reverse the item scoring for items 2, 3, 5 to 8, and 13. There were 21 items in all, each rated on a four-point scale. The statistical design was the same as used for the PEFL Test with two experimental and three language groups.

(4) N.F. Cavanaugh. The Role of Attitude and Motivation in Second Language Acquisition. Berkeley: University of California, 1976. (Unpublished Ed.D. Dissertation.)

Table 22. Means and Standard Deviations for the PEFL Student Interest Inventory

	PRE			POST			DIFFERENCE		
	N	$\bar{X}$	S	N	$\bar{X}$	S	N	$\bar{X}$	S
PEFL	219	58.99	5.21	231	60.01	5.95	231	1.00	5.75
CpGp	187	60.97	6.18	191	59.51	6.45	191	-1.64	6.95
French	113	61.53	5.698	129	61.56	6.13	103	.38	6.24
German	101	59.68	6.094	98	60.48	5.83	87	.21	6.79
Spanish	192	59.05	5.432	195	58.35	5.80	181	- .70	6.37
TOTAL	406	59.90	5.69	422	59.78	6.18	422	.19	6.29

There were no significant differences between groups, nor between languages on the pre, post, and gain score analyses. (Tables 23-26 in the Appendix) The F-ratios for the between group analyses were $F(1,404) = 12.28$ for the pretest scores; $F(1,420) < 1$ for the posttest scores; $F(1,369) = 16.04$ for the gain scores. The F tests were significant for the pretest and gain score analyses at $\alpha \leq .05$, but corresponding n's were .03 and .04, respectively.

The F-ratios for the between language analyses were $F(2,403) = 6.88$ for the pretest scores; $F(2,419) = 12.51$ for the posttest scores; $F(2,368) = 1.13$ for the gain scores. The former two F tests were significant at $\alpha \leq .05$, however corresponding n^2's were not, .0[illegible] and .06, respectively.

THE TEACHER INTEREST INVENTORY

The Teacher Interest Inventory was a modified version of the Lambert-Cavanaugh Personality and Attitude Scales.(6) The Inventory measures changes in attitude toward teaching foreign languages on the basis of three orientations: Traditional, Audiolingual, and Oral Communication. The latter exemplified PEFLing. Of the 22 complete (pre-post) sets, 13 were PEFLers, 4 Student Teachers, and 5 Comparison Group Teachers. The small number of Student Teachers and Comparison Teachers made comparisons difficult because of sample size. The means and standard deviations for the teachers' pre, post, and gain scores on the Interest Inventory are presented in Table 29. Nine One-Way Analyses of Variance were performed on the Teacher Interest Inventory: comparison of groups (PEFL, Student-Teachers, and Comparison Group) on the pre, post, and difference scores on the Traditional, Audiolingual, and Oral Communication scales.

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(6) Cavanaugh, op.cit.

There were two significant differences between groups, $F(2,20) = 4.56$ on the pretest of the Audio-Lingual scale ($n^2 = .31$), and $F(2,19) = 3.56$ on the gain scores of the Communicative scale ($n^2 = .27$). (Tables 30 - 38 in the Appendix) In both cases, means of the Comparison Group were higher than the means for PEFLers. No significant differences were found on the Traditionalist scale, $F(2,19) < 1$ on the pretest; $F(2,20) < 1$ on the posttest; $F(2,17) < 1$ on the gain scores. The posttest and gain score F-ratios of the Audio-Lingual scale were not significant, $F(2,21) = 1.27$ for the posttest and $F(2,19) = 1.47$ on the gain scores. No significant pretest nor posttest differences were found for the Communicative scale, $F(2,19) < 1$ and $F(2,21) = 1.39$, respectively.

Apparently, the three groups were not too different to start with in their orientation toward foreign language teaching and did not change over time, except for the comparison group with respect to an oral communication approach. Undoubtedly, these teachers were motivated toward an oral communication orientation by the experience of having their students pre- and post-tested on the PEFL Test, which was scored 50% for the live conversation portion. Also, some teachers in the comparison group knew the PEFL teachers and may have been influenced by them. This finding is an interesting side-effect of the PEFL Project. It also is interesting that, by contrast, their students' interest lagged, as reported on page 19. That the PEFLers did not change on the oral communication scale is an indication that they already were favorable to this approach.

The various outcome measures obtained during the first year of the Project did not result in statistically significant gains by PEFL students and their teachers over those of the comparison groups. The "why" of this needs to be discussed. The primary explanation is that during the first year of the funding, the PEFL program emphasized testing per se: developing the PEFL test, administering and evaluating it.[7] As a matter of fact, very early in the history of the Project, the policy was established that PEFL teachers should not change their teaching style as a result of being involved in the Project. Even though a number of PEFL teachers reported in their journals, orally at seminars, and in interviews that they were changing their teaching in the PEFL direction, no statistically measurable change occurred. Obviously, the task of changing long established habits of teaching is a formidable one.

Of considerable educational significance is that the difference between PEFL and comparsion group students was 2.75(B-) and 2.45 (C+), respectively. The B- grade meets the standard for University of California admissions and the C+ does not. Another factor to be kept in mind in weighing the importance of the outcome measures is that the criterion referenced tests developed by the Project were being administered for the first time. While these instruments possessed face validity and inter-rater reliability has been established, test-retest reliability has not been determined. Also, it may be that the testing activity itself in the comparison group teachers' classrooms inadvertently influenced them to give more than their usual emphasis to developing oral communication competence. Three of the 21 PEFL teachers compared their course letter grades with the results of the PEFL test; the correlation was 90.

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[7] In contrast to PEFL's one-year oral test-development period, the United States Foreign Service Institute has been working for 20 years to perfect an oral testing system. The director of this 20-year effort, Howard E. Sollenberger, observed that "...one of the principal limitations is the inability of this system to make meaningful judgments or to measure the most significant objective of human speech--effective communication."

PROJECT TEACHER QUESTIONNAIRE

The purpose of administering the Project Teacher Questionnaire was to obtain teacher reactions to the specific effects of administering the PEFL Test. The Questionnaire was given in the fall of 1978 just after the PEFL Pre-Test was administered. The analysis of the results at that time served as an immediate feedback on ways to improve the administration of the Test and one seminar was given over to discussing the results of the fall Questionnaire. The Questionnaire was given again after the spring of 1979 administration of the PEFL Post-Test to obtain information that would also be useful in revising it. The chief areas of questioning dealt with testing problems, positive features of the Test, teacher satisfaction, and why they would be interested in giving the Test again next year.

Problems

Over half the teachers (N of 20) identified difficulties with the PEFL Test, as follows.

Mechanical problems	6
Lack of an adequate interview room	10
Required too many extra assignments	6
Not enough time	4

One teacher wrote that she found it difficult to keep the

rest of the students in the class occupied with non-test-type activities during the Test interviews.

Positive Features

All but one of the teachers checked that the testing had a generally positive impact on them and their teaching. The reasons for these positive feelings were as follows.

Presence of outside help	19
Competence of outside help	19
Working in small groups	10
Teacher motivation	19

One teacher wrote:

> "Having a seperate small room in which to conduct the oral testing was a very positive element in my favorable reaction."

Another said:

> "Students were able to prove what they had learned through an informal conversational approach to language acquisition."

Teacher Satisfaction

Seventeen of the twenty checked "yes" in answer to the question: Were you satisfied with the Test in the light of what PEFL is seeking to achieve?

Two PEFLers wrote in substantially the same comment:

> "We need to try to find a time (or a way) which doesn't interfere with the end of the year class (and school-wide) activities."

Two others wrote comments about the capability and enthusiasm of the student teachers assigned to their PEFL classroom.

"They were especially helpful with the PEFL Test."

"My student teacher was very creative in devising PEFL-type activities for the classroom."

Would you be willing to PEFL again next year?

All twenty responded "yes" to this question, checking the following reasons.

Student enthusiasm	18
Student achievement	20
Better classroom climate	10
More variety in teaching	20
More creativity in teaching	20
Other teachers' responses	2
School administrators' responses	3

Comparing the Post-test responses that were secured in May, 1979, with those of the Pre-test showed that, in general, PEFL teachers

1. were more positive in their feelings about the Post-test than the Pre-test.
2. felt their students were more enthusiastic about the "experiment".
3. were experiencing fewer problems administering the Post-test, and
4. were more willing to participate in a revision of the Test next year.

More specifically, a comparison of Pre- and Post-Tests showed that 15 of the 20 PEFL teahcers were changing their teaching behavior as a direct result of their participation in PEFL. Five indicated they did not change, as such: rather, their participation in PEFL

reinforced and supported what they already were doing.

The kinds of changes reported by the PEFL teachers were as follows.

1. Spending larger and greater amounts of time having students speak on topics in the target language.

2. Having students sit around in small groups speaking and listening to tapes of their conversations.

3. Having students speak personally about themselves in the target language.

4. Having students spend more and more time in acquiring language facility and less and less time in grammatical structure.

5. Over-all, spending increasing amounts of both in-class and out-of-class time in oral performance.

On the Post-test, several teachers also reported having students in traditional classes in their department asking to be transferred to PEFL classes.

STUDENT TEACHER QUESTIONNAIRE

University of California, Berkeley graduate students serving as student teachers were assigned to classes under the direction of PEFL Project Teachers. Student teachers also participated in the semi-monthly PEFL seminars and helped in the administration of the PEFL Test. The Student Teacher Questionnaire was administered to student teachers at or near the end of the academic year. Replies were received from the total group (18), all of whom checked that they know "a lot" about PEFL and checked "yes" in answer to the question, "Are you in agreement with what PEFL is trying to do?" Eleven then wrote in comments, six of which were strongly supportive of what the Project is doing, and five of which were "yes, but" statements. Samples of each type of comment follow.

> "Anything that emphasizes student performance is good."
>
> "Conversing in the language you are learning is important."
>
> "It is another way of knowing the proficiency level of second year language students."
>
> "I agree the focus should be on performance and comprehension rather than translation."
>
> "Yes, I believe PEFL is in the right direction, but the Test is too complicated and takes too much of the students' time and the teachers' time."
>
> "Yes, but I think it needs more concrete objectives and a more structured, more reliable testing set-up."

> "Yes, but I'm concerned that some of the high school students expressed discomfort at being perennial guinea pigs."

All 18 stated they had been involved in preparing second-year students "academically and psychologically" for the PEFL Test, they felt their involvement in PEFL as a part of their credential program was a definite asset, and they expressed interest in remaining involved in the Project in the future.

In response to the question, "What would you like to see as outcomes of the Project?", a wide variety of comments were received, all pointing in the direction of hoping that PEFL would eventually develop a test that was simple enough to be used widely, a student-performance based teaching "system" that would replace the present emphasis on grammar structure and translation, and be accepted generally. Some typical comments were the following.

> "I hope all this results in a more uniform teaching system that enhances communication."
>
> "I would like to see new guidelines emphasizing oral communication."
>
> "I'd like to see state-wide acceptance of a second language as a core academic subject."
>
> "I'm betting on a simple, exportable testing procedure."
>
> "I'd like the results to be a better test, better oral communication, more foreign language enrollments, and more jobs for newly-prepared teachers."
>
> "I'd like the result to be second year students prepared for the next level at whichever school they may change to."

> "Let's hope the result is U.C. and all other colleges requiring at least a third year of language and the PEFL emphasis sweeping the nation."
>
> "In the long run, language instruction should be usage-based."

The final question was whether their participation in performance testing had affected them or their teaching. Five did not answer the item, three said it had not affected them or their teaching in any significant way, and ten responded positively. Some typical comments follow.

> "I am now more aware of the variables and difficulties in developing class objectives and making or finding appropriate tests to measure these outcomes."
>
> "I am now prepared psychologically and academically to emphasize spontaneous conversation rather than simply having students answer questions in the target languege."
>
> "Yes, it is beginning to sink in and I'm confident the effect will be greater in the future."
>
> "We all profited from being involved 'academically and psychologically' in this very exciting innovation in the foreign language field."

Summary

Student teachers' experience with PEFL has had a significant impact on them as teachers and made a positive contribution to their teacher education program. Parenthetically, it is important to note that the Project Teachers and PEFL staff were delighted with the student teachers' involvement in the Project and were unanimous in their conclusion that the student teachers made a real contribution to its success.

STAFF DEVELOPMENT SEMINAR RESPONSES

Staff Development Seminars were held for all Project Teachers throughout the Project Year. In the summer, these seminars were held every Wednesday morning. During the school year, they were held twice a month on Wednesday afternoons. The initial focus of the seminars was the development of an experimentation with classroom strategies toward the improvement of students' oral communicative competency. The evaluators monitored each session, recording a description and analysis of the activities in order to document the impact of the Project on the knowledge, attitude, and behavior of the teachers.

1978 Summer Staff Development Seminars

Project Teachers spent the first two Seminars organizing themselves into committees to work on the various aspects of the Project. These aspects included (1) the revision of the PEFL Test, using a pre-test and post-test format; (2) the development of PEFL classroom activities; (3) the development of the PEFL Interest Inventories; (4) and general administrative tasks, such as the preparation of evaluation documents.

After the initial journal writing by PFELers at each seminar, most of the time was spent working in committees. Each chairperson was responsible for making a report to the total group at the beginning of each seminar. In this way, all the PEFLers were kept informed of each committee's progress, and those instruments necessary for the 1978-79 school year were prepared.

Professors from the French, German, and Spanish Departments of the University of California, Berkeley served as consultants to the Project, participated in several Steering Committee Meetings, and assisted in conducting a number of the seminars.

The last summer seminar was spent planning the focus of the school year seminars and finalizing the PEFL Pre-test for fall, 1978 administration.

1978-79 School Year Staff Development Seminars

After the administration of the PEFL Pre-test, many ideas about revising it were expressed during the semi-monthly seminars. These were duly noted to be reviewed the next summer when the PEFL Test would be scheduled to undergo its second revision.

A great deal of seminar time was spent refining the classroom activities that were developed during the summer. PEFL Teachers experimented with the activities in their classrooms and then critiqued them for the whole group. In addition, the student teachers tried the activities in their classrooms and reported their experiences. In this way, the activities were refined for development into the PEFL Activity Handbook scheduled for completion in the summer of 1979.

The regional meeting of the President's Commission on Foreign Language in San Francisco in February was the focus of discussion at several of the midyear meetings. Representatives of the PEFL Project were invited to attend the meeting so a great deal of time in the seminars was spent in preparation for their attendance and discussions of their experiences at the meeting.

Dr. Richard Barrutia of the University of California, Irvine, and Dr. Janet Kayfetz of the University of California, Berkeley, visited the Project in the spring. Barrutia wrote an evaluation of the Project and Kayfetz made a presentation on natural language acquisition. Visits from both consultants occupied a great deal of time at several of the spring seminars.

The Staff Development Seminars in May served as summarizing session of the 1978-79 school year as well as preparation sessions for the work to be done in the summer of 1979, the second funding year of the Project.

Summary

Through the Summer Staff Development Seminars, PEFL Teachers succeeded in preparing the necessary instruments to carry the PEFL Project into the secondary school Level II foreign language classes in the 1978-79 school year.

The 1978-79 School Year Staff Development Seminars drew together the Project Teachers to share their experiences in using the PEFL Test and the PEFL Activities in their level II classes. These seminars also allowed Project Teachers to receive input from various consultants to help them use PEFL in their schools.

STEERING COMMITTEE MINUTES

The Steering Committee, whose principal purpose is to establish policy for the Project, met once a week during the school year and on an "as needed" basis during the summer of 1978. During the 1978-79 school year, the Committee met in the afternoon every other Wednesday prior

to the Seminars, and frequently on alternate Wednesdays as well. The evaluators documented the Committee's actions and interactions as a means of monitoring the progress of the Project.

1978 Summer Steering Committee Meetings

During July and August, the Committee showed common concern over maintaining a high morale and, especially, over the evaluation of the tapes among the three languages. Initially, the Spanish tapes were consistently graded lower than French and German. As the summer progressed, the group expressed the need for an external consultant who would give input on a quarterly basis. The Committee selected Dr. Joan Green of the University of San Francisco to accomplish this task.

At the end of the summer workshop, a luncheon was planned and held with Project school and district administrators.

With the time of the opening of the school year approaching, the Project public relations brochure, the Pretest workshop, and the Pre-test itself were firmed up and the discussion moved on to what the "treatment" during the school year should be. With the recommendation of the State Department of Education, the Committee decided that Associate PEFLers' classes would serve as control groups for evaluation purposes. Contamination between the PEFL and Associate PEFLers was seen as a possible problem.

1978-79 School Year Steering Committee Meetings

Following the administration of the PEFL Pre-test at the Project school sites, concern again was expressed over a more standardized evaluation among the three languages. Measures of reliability were set up and the allocation of time for tape evaluations was determined. At this time, the Steering Committee emphasized the need to avoid contamination

of PEFL and non-PEFL classes between pre- and posttesting, as indicated by Joan Green in her second report.

After the pre-test period, the emphasis of the Committee turned to the "treatment." The classroom learning activities were reviewed, modified, and filed to allow easier access for Project Teachers.

In December, plans were made for the visit of ESEA Title IV-C Consultant Robert Rowe, State Department of Education. His visit was followed with preparations for PEFL participation in the conference held in February in San Francisco of the Regional Meeting of the President's Commission on Foreign Language and International Studies.

Also in February, the Committee focused on the ensuing visit of Consultant Richard Barrutia of the University of California, Irvine. Following his visit, Dr. Barrutia wrote an extensive evaluation report of the PEFL Project. (See Appendix B)

In March, the Steering Committee determined that computer facilities at the office of the Alameda County Superintendent of Schools were inadequate for PEFL's needs. In addition, that office seemed reluctant to assume such additional responsibilities in view of Proposition 13 cutbacks. Therefore, the Steering Committee decided to use the computer facilities at the University of California, Berkeley. To this end, it made the appropriate budgetary transfer with the consent of Consultant Robert Rowe and hired James Fleming as its computer analyst.

Fleming attended one of the Steering Committee meetings in March to help the Committee develop an understanding of how the computer date of the Pre- and Post-test were to be analyzed. Also in March, Janet Kayfetz, English as a Second Language Specialist and student of Krashen's

presented to the Steering Committee a summary of Krashen's Monitor Model.

The question of continued funding became the focus of discussions in March and April. Also, during this period of time, Project Evaluator James Stone stated his concern about the lack of full responses from Project Teachers' journals.

In May, ESEA Title IV-C Consultant Robert Rowe made his second visit to the PEFL Project.

Throughout May and June, the Steering Committee showed more consistent awareness, from a theoretical standpoint of Krashen's theory and its implications for PEFL. The Project Year ended with the Post-test workshop, a meeting with Krashen regarding a different test format, and the evaluation of the tapes of the Post-tests.

Summary

The meetings of the Steering Committee generally were well-attended, lively, and with good exchanges between and among the members. It was an excellent demonstration of Project participants governing their own activities through constructive decision-making, thus supporting the research finding of Berman's 1976 Rand Corporation study that effective, successful projects featured decision-making by participants.

PROJECT DIRECTOR INTERVIEW

On an overall basis, PEFL has achieved what we set out to do in its first formal year of operation.

We have created, administered, and evaluated a foreign language testing system for communicative competency involving one thousand second-year high school students in French, German, and Spanish; two counties; five school districts; twenty high schools; thirty-seven teachers; four

Paul Berman, and Millbraey McLaughlin. Federal Programs Supporting Educational Change, Vol. 8: Implementing and Sustaining Innovations. Report No. R 1589/8 Washington D.C. Department of Health, Education, and Welfare, 1977.

University of California professors; and ten University of California graduate students preparing to be teachers. The thirty-seven teachers and ten student teachers participated during the year with experimental and control classes in the schools. Project staff, teachers, and student teachers met daily during the summer of 1978 and every two weeks during the school year in a Project-directed seminar. The seminars focused on improving the design and administration of the PEFL test, Project governance and planning, creating and experimenting with PEFL-appropriate classroom teaching activities and procedures, and discussions of theories about second language acquisition.

We have instituted a parallel formative evaluation system under the direction of the Project Evaluator which has provided a constant feedback on every step taken. Also, under his direction, an external evaluator has reviewed the work of the Project on a quarterly basis and prepared semi-annual written critiques together with recommendations. These reports, along with those from outside Project consultants, have contributed greatly to the continuous progress and overall development of the Project.

We have developed a computer program which uses currently available University of California computer center facilities. This program will provide statistical data on the results of the PEFL test and PEFL-developed attitude surveys of both students and their teachers.

We have completed tentative plans for the revision and simplification of the PEFL test and are ready to commence the development of this revised instrument this coming summer with the help of the PEFL teachers.

We have made a good start in creating and trying out PEFL activities for use in teaching communication skills to second-year language students. A major project in the coming year will be to develop a handbook of these classroom strategies. A first draft should be ready by September for Project teachers to try out and refine during the school year.

PEFL, however, has not been without its difficulties. The 1978-79 testing system was too complicated, too cumbersome, too detailed for teachers and students alike. Finding Krashen's Monitor Model and using his theory of language acquisition will give the Project a sound basis for revising the test. The problem of student drop-out has plagued the Project and will continue to do so during the coming year. From 674 pre-tests, the comparable post-tests dropped to 479. This is a given variable in urban schools today which has significance for statistics and also for teaching and learning generally.

The Needs Assessment Workshop conducted on May 16, 1979, provided a good example of our first year assets and liabilities. It showed concretely what we have done in terms of what we set out

to do, and it showed also the concerns of PEFL teachers which the Project has not and perhaps cannot address. Despite this latter problem, the main thrust of the Project is being achieved. If we can continue to focus on our stated purpose, PEFL has the potential of creating an impact on high school foreign language instruction that can be of national significance.

PROJECT EVALUATOR'S PHENOMENOLOGICAL RESPONSE

The Project Evaluator was the first person Karl Schirrill consulted when he read the new (June 18, 1976) U.C. undergraduate admissions guidelines. (I had been the U.C. Admissions Director in the early 60's.) Together, Karl and I discussed their implications vis-a-vis foreign language and it was then that he conceived the PEFL Project and I became the Evaluator. Thus, I had the rare opportunity to be on board from day one and to experience and document the ups and downs, accomplishments and disappointments, problems and probabilities, hopes and dreams of the experiment. There is no question but that the Hawthorne Effect is ever present. It is the dynamo that keeps the Project moving and esprit-de-corps high. There is no doubt either that PEFL is riding the crest of a wave in language instruction that will have a national impact; its timing is right, and it will succeed beyond the Director's fondest dreams. Evidence for this belief comes from the interest in PEFL shown by such groups as the President's Commission on Foreign Language and

International Studies, National Endowment for the Humanities, and the U.S. State Department. Clearly the University and the ESEA Title IV-C network should be proud of this new string in their bow.

Hopefully, my extensive formative and summative evaluations adequately will record, document, and monitor the significant results of the PEFL Project.

SUMMARY AND CONCLUSIONS

1. Can a test be devised to measure high school Level II students' oral performance in a foreign language and how do students perform on it?

The PEFL teachers developed a test of oral performance that was administered on a pre-post-test basis during the 1978-79 academic year. The students of PEFL teachers did not out-perform those of the comparison group to a statistically significant degree. Sample analyses showed the groups were comparable. PEFL students, however, did obtain an average higher grade on the post-test (2.75 or B- vs. 2.45 or C+). Educationally, this was very meaningful because it shows that PEFL students qualified for college admissions and non-PEFLers did not).

However, teachers reported the test to be "awkward," "cumbersome," and requiring "too much time to administer and score." Thus, to date, PEFL has not developed an exportable test and this remains a major task of the ensuing years. To have expected that this might be done in a year was unrealistic. Testing companies take years to develop and standardize paper and pencil tests. No one has developed the kind of oral test PEFL is attempting; several more years will be needed to prepare a test that meets the necessary standards of validity and reliability in order for the PEFL test to be exportable.

2. Does study of a foreign language change students' attitude toward and interest in that language?

Level II students of PEFL teachers did not obtain significantly higher scores on the Student Interest Inventory. Sample analyses showed the groups were comparable. Evidence from teachers' journals, teachers' interviews, minutes of meetings, seminars, and participant observations, however, showed that PEFL teachers spent a great deal of time and thought planning classroom activities that were designed to heighten student interest in a foreign language and its associated culture. The evidence also shows that these varied activities, simulations, and games were well-received by their students.

Ironically, Interest Inventory scores of the Comparison group decreased between the pre- and post-testing, indicating that these students' interests waned during the course of the year. The Student Interest Inventory is criterion-referenced--an adaptation of one used in several previous studies. An item analysis will be undertaken after the Inventory is administered again.

3. Does participation in the PEFL Project change teachers' attitude toward and interest in teaching a foreign language and their consequent behavior?

As measured by the Teacher Interest Inventory, there was no change in PEFL teachers' attitude toward and interest in teaching a foreign language. The Inventory did indicate, however, an improve-

ment in the corresponding attitude of the comparison group. With the exception of age, sample analyses showed that the groups were comparable.

No change for PEFLers and a positive attitude change in the comparison group may be explained by the fact that the PEFLers had voluntarily been involved in the Project for a year prior to Title IV-C funding; they already were highly committed to language teaching that emphasizes oral performance. The comparison group of teachers, on the other hand, had not made such a commitment. The improvement in their attitude, therefore, can probably be attributed to the fact that they knew their students were going to be evaluated on the basis of the PEFL Test.

Evidence from PEFL teachers' journals, teachers' interviews, and seminar documentation showed that PEFL teachers said that their classroom behavior was changing as a result of their participation in the Project. This was true of all but five PEFLers. These five repeatedly reported they already taught the "PEFL-way" prior to the Project and that, for them, PEFL had reinforced and sustained their oral-competence orientation.

4. What impact have Staff Development Seminars had on the participating teachers?

The Staff Development Seminars were carried on over a 15 month period: once a week for eight weeks in the summer of 1978, semi-monthly during the 10-month academic year, and once a week for

8 weeks again in the summer of 1979. The seminar content was determined by the Steering Committee. The Committee consisted of one teacher from each of the 5 districts, the Project Director, and the Project Evaluator. The "treatment," therefore, as described on pages 4 and 5, was participant determined. Documentation of each of these 36 seminars (9) showed that they resulted in teachers learning about new theories, trying out new strategies, evaluating their results, and preparing for publication a PEFL Activities Booklet. Evidence suggests that the academic year support given by semi-monthly meetings helped to maintain a high degree of enthusiasm for and interest in the Project.

Undoubtedly, PEFLers were stimulated by being a part of an innovative endeavor. They became good colleagues and good friends, though they often differed extensively when discussing the content of the PEFL Test. How much of the Project's impact was the result of "the treatment" and how much was the result of "the Hawthorne effect" is conjectural; doubtless both are at work in some indistinguishable manner.

5. What unintended consequences have resulted from the PEFL Project?

The attitude of the comparison group teachers changed in the direction of oral communicative competence. This was an unanticipated consequence. The student teachers who were associated with the program contributed to the preparation of the PEFL Activities

(9) This does not include the many other hours during the 15 months that PEFLers worked in task groups on various aspects of the Project.

Handbook, for which the PEFL teachers were most grateful. The U.C. Berkeley pre-service program in foreign language was reorganized in order to become a part of PEFL. Language researchers like Mueller, Krashen, Kayfetz, and Eddy became actively involved in PEFL. The National Endowment for the Humanities expressed interest in sponsoring an "Extended Summer Institute" based on PEFLing. The President's Commission on Foreign Language and International Studies requested information about the Project, PEFLers attended the regional hearing in San Francisco, and the Project Director made a presentation about PEFL at the Commission's request. Encouraging to the participants, information about PEFL has been sought increasingly by individuals and organizations throughout the United States as well as foreign countries.

As the year progressed, PEFLers became evaluation-conscious. Various members of the group assisted in designing instruments and gathering and analyzing data; in addition, one now has applied for graduate study at the University of California, Berkeley, in program evaluation!

Not entirely unexpectedly, but certainly worth mentioning, the PEFL Project demonstrated how effectively secondary school teachers, University language specialists, School and Department of Education faculty and graduate students, and state and national consultants can work together for a common cause.

Finally and most importantly, Project staff and participants gradually came to the realization that a conceptual framework was needed as a guide to decision-making and to determine future directions. A study of the research literature was begun and language experts on the Berkeley campus were consulted. The result was the Project's "discovery" of Krashen's Monitor Model. PEFL's field activities were a natural demonstration of the model. Thus, unexpectedly, a marriage of theory and practice has been brought about that has international significance for language acquisition, instruction, and evaluation.

APPENDICES

Table 4

ANOVA Table for the Students' Written Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	.31	.31	.30	.001
Within Group	459	468.45	1.02		
Total	460	468.76			

Table 5

ANOVA Table for the Students' Written Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	29.63	29.63	23.17*	.05
Within Group	465	594.67	1.28		
Total	466	624.30			

*significant at $\alpha \leq .05$, but $n^2 = .05$

Table 6

ANOVA Table for the Students' Written Difference Scores

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	36.02	36.02	20.42*	.04
Within Group	456	804.27	1.76		
Total	457	840.29			

*significant at $\alpha \leq .05$, but $n^2 = .04$

Table 7

ANOVA Table for the Language Groups on the Written Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	5.69	2.84	2.81	.01
Within Language	458	463.07	1.01		
Total	460	468.76			

Table 8

ANOVA Table for the Language Groups on the Written Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	6.38	2.40	2.40	.01
Within Language	464	617.92	1.33		
Total	466	624.30			

Table 9

ANOVA Table for the Language Groups on the Written Difference Scores (pre-post)

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	6.62	3.31	1.81	.01
Within Language	455	833.67	1.83		
Total	457	840.29			

Table 10

ANOVA Table for the Students' Oral Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	.83	.83	.79	.002
Within Group	468	494.97	1.06		
Total	469	495.80			

Table 11

ANOVA Table for the Students' Oral Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	10.93	10.93	10.37*	.02
Within Group	468	492.91	1.05		
Total	469	503.84			

*Significant at $\alpha \leq .05$, but $n^2 = .02$

Table 12

ANOVA Table for the Students' Oral Difference Scores

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	5.73	5.73	4.20*	.01
Within Group	468	637.58	1.36		
Total	469	643.31			

*Signficant at $\alpha \leq .05$, but $n^2 = .01$

Table 13

ANOVA Table for the Language Groups on the Oral Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	18.76	9.38	9.18*	.04
Within Language	467	477.04	1.02		
Total	469	495.80			

*Significant at $\alpha \leq .05$, but $n^2 = .04$

Table 14

ANOVA Table for the Language Groups on the Oral Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	12.05	6.02	5.72*	.02
Within Language	467	491.79	1.05		
Total	469	503.84			

*Significant at $\alpha \leq .05$, but $n^2 = .02$

Table 15

ANOVA Table for the Language Groups on the Oral Difference Scores

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	26.08	13.04	10.69*	.04
Within Language	467	617.23	1.22		
Total	469	643.31			

*Significant at $\alpha \leq .05$, but $n^2 = .04$

Table 16

ANOVA Table for the Students' Conversation Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Groups	1	1.76	1.76	1.83	.004
Within Groups	468	450.67	.96		
Total	469	452.43			

Table 17

ANOVA Table for the Students' Conversation Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	10.51	10.51	10.22*	.02
Within Group	468	481.46	.03		
Total	469	491.97			

*Significant at $\alpha \leq .05$, but $n^2 = .02$

Table 18

ANOVA Table for the Students' Conversation Difference Scores

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n
Between Group	1	3.67	3.67	2.61	.006
Within Group	468	657.37	1.40		
Total	469	661.04			

Table 19

ANOVA Table for the Language Groups on the Conversation Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	.16	.08	.08	.000
Within Language	467	452.27	.97		
Total	469	452.43			

Table 20

ANOVA Table for the Language Groups on the Conversation Posttest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	20.33	10.17	10.07*	.04
Within Language	467	471.64	1.01		
Total	469	491.97			

*Significant at $\alpha \leq .05$, but $n^2 = .04$

Table 21

ANOVA Table for the Language Groups on the Conversation Difference Scores

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	22.72	11.36	8.29	.03
Within Language	467	638.32	1.37		
Total	469	661.04			

*Significant at $\alpha \leq .05$, but $n^2 = .03$

Table 23

ANOVA Table for the Students' Pretest Scores on the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	1	396.09	396.09	12.28*	.03
Within Group	404	13032.77	32.26		
Total	405	13428.86			

*Significant at $\alpha \leq .05$, but $n^2 = .03$

Table 24

ANOVA Table for the Students' Post-Test Scores on the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, $\hat{n}^2$
Between Group	1	25.68	25.68	.67	.002
Within Group	420	16045.70	38.20		
Total	421	16071.38			

Table 25

ANOVA Table for the Students' Difference Scores on the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, $\hat{n}^2$
Between Group	1	639.14	639.14	16.04*	.04
Within Group	369	14701.03	39.84		
Total	370	15340.17			

*Significant at $\alpha \leq .05$, but $\hat{n}^2 = .04$

Table 26

ANOVA Table for the Language Groups on the Pretest of the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, $\hat{n}^2$
Between Language	2	443.38	221.69	6.88*	.03
Within Language	403	12985.48	32.22		
Total	405	13428.86			

*Significant at $\alpha \leq .05$, but $\hat{n}^2 = .03$

TABLE 27

ANOVA Table for the Language Groups on the Posttest of the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	905.44	452.72	12.51	.06
Within Language	419	15165.93	36.20		
Total	421	16071.38			

*Significant at $\alpha \leq .05$, but $n^2 = .06$

TABLE 28

ANOVA Table for the Language Groups on the Difference Scores of the Interest Inventory

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Language	2	93.37	46.69	1.13	.01
Within Language	368	15246.80	41.43		
Total	370	15340.17			

TABLE 30

ANOVA Table for the Teacher's "Traditionalist" Interest Pretest

Source	Degrees of Freedom	Sum of Squares	Mean Square	F	Explained Variance, n^2
Between Group	2	.34	.17	.02	.002
Within Group	19	155.52	8.19		
Total	21	155.86			